AL60A

120 Watts

AL60A Enhanced Series

Total Power	*120 Watts*
Input Voltages	*48V or 300V*
# of Outputs	*Single*

AL60A Technical Manual - Click Here

SPECIAL FEATURES

- High efficiency - up to 86%
- 500 KHz fixed frequency
- 85°C baseplate operating temperature (with no derating)
- Low output ripple and noise
- Excellent transient response
- Safety isolated low voltage control and monitoring
- High reliability
- Wide input voltage range
- Parallelable with accurate current sharing
- Adjustable output voltage and current limit
- Regulation to zero load
- Temperature monitor output

ENVIRONMENTAL

Operating temperature (baseplate): -20°C to +85°C

Storage temperature: -40°C to +105°C

Overtemperature shutdown: 90°C typical

MTBF: > 1 million hours (50°C baseplate)

SAFETY

UL	UL 1950	E182206 & E32002
CSA	CSA22.2-234 CSA22.2-950	LR53982C
VDE	IEC 950	20396-3336-1003 & 1009
EN	60950	
CE	CEMark (LVD)	

ELECTRICAL SPECIFICATIONS

Input

Input Range ..... 180 to 400 VDC *or* 36 to 72 VDC

Efficiency ..... 83% typical (5V @ 20A);
85% typical (12V @ 9A)

Control

Voltage Adjust ..... 90 to 110% Vo

Enable ..... TTL compatible (low to enable)

Clock Input (external sync) .... 3.3 to 5.5Vp-p @ 1MHz ± 10%

Temperature Monitor Output . 10 mV/°K (2.73V = 0°C)

Current Monitor Output ..... 0 to 1mA (1mA = 100% Io Rated)

Output

Load Regulation ..... 0.2% typical down to no load

Line Regulation ..... 0.1% typical

Noise/Ripple ..... 75 mV typical (output below 5V)
2% typical (output 5V and over)

Remote sense ..... Up to 0.5V

Output Voltage
Adjust Range ..... ±10% of nominal output

Transient Response ..... 4% typical deviation with
250µs recovery (25-75% full load)

Current Share Accuracy ..... 5% typical

Overvoltage Protection ..... 125% nominal Vo

Current Limit ..... 110% Io max

NOTES

Nominal values apply with sense pins connected and other control pins unconnected.

Specifications subject to change without notice.

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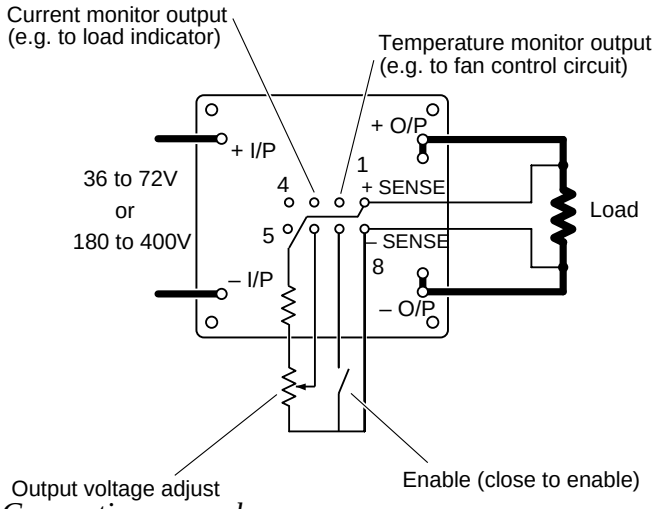
ORDERING INFORMATION

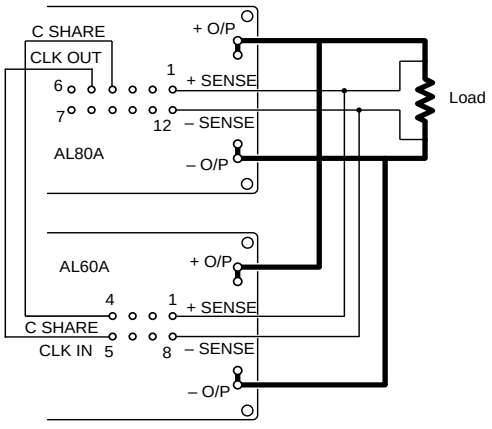
Input Voltage	Output Voltage	Output Current	Model Number	Input Voltage	Output Voltage	Output Current	Model Number
300V	2.0V	20A	AL60A-300L-020F20	48V	2.2V	30A	AL60A-048L-022F30
300V	3.3V	25A	AL60A-300L-033F25	48V	3.3V	25A	AL60A-048L-033F25
300V	5V	20A	AL60A-300L-050F20	48V	5V	10A	AL60A-048L-050F10
300V	12V	9A	AL60A-300L-120F09	48V	5V	20A	AL60A-048L-050F20
300V	15V	8A	AL60A-300L-150F08	48V	12V	6A	AL60A-048L-120F06
300V	24V	3A	AL60A-300L-240F03	48V	12V	9A	AL60A-048L-120F09
				48V	15V	8A	AL60A-048L-150F08

Please contact Astec for information on other output voltages, power ranges and configurations.

CONNECTIONS



Connection example

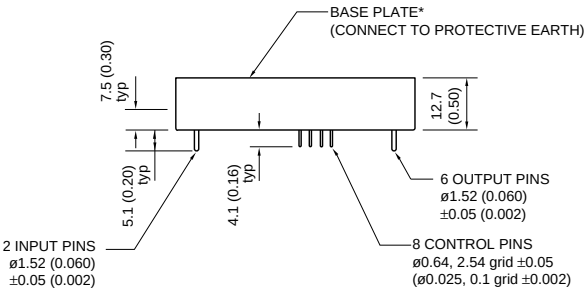


Parallel connection example between AL80A and AL60A

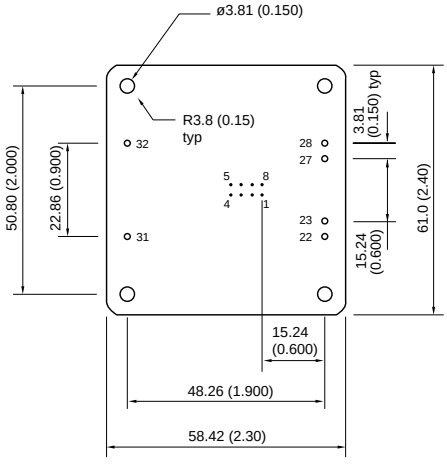
PIN ASSIGNMENTS

Input	Output		Control Pins	
31. +ve	22.	+ve	1. +SENSE	Secondary side controls
32. –ve	23.		2. TEMP MON	
	27.	–ve	3. C MON	
	28.		4. C SHARE	
			5. CLK IN	
			6. V ADJ	
			7. ENABLE	
			8. –SENSE	

DIMENSIONS



**Must be connected to protective earth*



Notes:
1. All dimensions in mm and (inches)
2. Baseplate must be connected to protective earth
3. General tolerance: .X ±0.5 (0.02)
   .XX ±0.25 (0.010)
4. Surface Flatness: Concave 0.12mm max
   Convex 0.38mm max

Viewed from pins side. Dimensions in mm (inches)

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